

What Is Claimed Is:

1. A method for controlling vehicle dynamics in a motor vehicle,
 - at least one sensor recording at least one measured value;
 - at least one actuator for controlling vehicle dynamics being driven as a function of the at least one measured value, wherein, to control vehicle dynamics, at least one image sensor system generates image information from the motor-vehicle surround, at least two image sensors being provided which essentially record the same scene, in particular the image sensor system is at least one stereo camera.
2. The method as recited in Claim 1, wherein at least one measured value is determined from the generated image information, the measured value being used for vehicle dynamics control.
3. The method as recited in either Claim 1 or 2, wherein
 - at least one fixed image point is determined from the generated image information;
 - the image coordinates of the at least one fixed image point are determined in at least two, preferably successive images of one image sequence;
 - the at least one measured value is determined from the ascertained image coordinates, the measured value being used for vehicle dynamics control.
4. The method as recited in one of the preceding claims, wherein, as a measured value, at least one rotational vector of the motor vehicle and/or at least one motion vector of the motor vehicle are determined from the generated image information.

5. The method as recited in one of the preceding claims, wherein, as a measured value, the yaw rate and/or the yaw angle and/or the lateral acceleration of the motor vehicle are determined from the generated image information.

6. A method for determining the motion of a motor vehicle, wherein the three-dimensional rotational motion and/or the three-dimensional translational motion of the motor vehicle are determined as a function of image information from the motor-vehicle surround, the image information being generated from at least one image sensor system, the image sensor system including at least two image sensors which essentially record the same scene, in particular the image sensor system being at least one stereo camera.

7. The method as recited in one of the preceding claims, wherein a viewing direction of the at least one first image sensor system is in the direction of travel and/or opposite thereto, and/or a viewing direction of the at least one second image sensor system is disposed transversely to the direction of travel.

8. A device for vehicle dynamics control in a motor vehicle having at least one sensor for recording at least one measured value and at least one actuator, which is driven by a processing unit/control unit as a function of the at least one measured value for vehicle dynamics control, wherein at least one sensor is configured as an image sensor system, at least two image sensors being provided which essentially record the same scene, in particular the image sensor system being at least one stereo camera, the image sensor system generating image information from the motor vehicle surround.

9. The device as recited in Claim 6,
wherein the processing unit/control unit has means for
determining at least one measured value from the generated
image information, the measured value being used for vehicle
dynamics control.

10. The device as recited in either Claim 6 or 7,
wherein

- the processing unit/control unit has means for determining fixed image points from the generated image information;
- the processing unit/control unit has means for determining the image coordinates of the at least one fixed image point in at least two, preferably successive, images of one image sequence;
- in the processing unit/control unit, means are provided for determining the measured value from the ascertained image coordinates, the measured value being used for vehicle dynamics control.

11. The device as recited in one of Claims 6 through 8,
wherein the processing unit/control unit has means for
determining at least one rotational vector of the motor
vehicle and/or at least one motion vector of the motor vehicle
from the generated image information.

12. The device as recited in one of Claims 6 through 9,
wherein the processing unit/control unit has means for
determining the yaw rate and/or the yaw angle and/or the
lateral acceleration of the motor vehicle from the generated
image information.

13. A processing unit/control unit for controlling vehicle
dynamics in a motor vehicle, comprising

- means for processing at least one measured value, which is recorded by at least one sensor, the measured value being used for vehicle dynamics control;

- means for controlling at least one actuator for vehicle dynamics control,

wherein means are provided for processing image information from at least one image sensor system, in particular from at least one stereo camera, the image sensor system including at least two image sensors which essentially record the same scene.

14. The processing unit/control unit as recited in Claim 11, wherein the processing unit/control unit has means for determining at least one rotational vector of the motor vehicle, in particular the yaw rate and/or the yaw angle, and/or at least one motion vector of the motor vehicle, in particular the lateral acceleration, from the generated image information.

15. A computer program having program-code means in order to implement all steps from any one of Claims 1 through 7 when the program is executed on a computer.

16. A sensor unit having at least one image sensor system, in particular at least one stereo camera, in particular for implementing the method as recited in at least one of Claims 1 through 7,

- at least two image sensors being provided which essentially record the same scene,

- the sensor unit generating image information from the surrounding area,

wherein means are provided for determining at least one rotational vector and/or at least one motion vector.